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Notice of Allowability	Application No.	Applicant(s)	
	10/054,487	LAUMAN ET AL.	
	Examiner	Art Unit	
	Rodney T. Frank	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE filed 18 August 2005.
2. ☒ The allowed claim(s) is/are 1-59.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

EXAMINER'S AMENDMENT

Authorization for this examiner's amendment was given in a telephone interview with Mr. Bob Connors on 18 November 2005.

The application has been amended as follows:

In the Claims:

- Claim 47: A dialysis system, comprising:

a fluid flow mechanism having a flexible membrane receptacle arranged to hold and convey a fluid during a dialysis treatment; and

a fluid volume capacitance sensor having first and second capacitor plates each positioned and arranged outside of and on an opposing side of the fluid flow mechanism to measure a volume of the fluid conveyed by the flexible membrane receptacle during the dialysis treatment.

- Claim 51: A method of measuring a volume of a medical fluid pumped by a fluid pump, comprising the steps of:

configuring a plurality of capacitor plates to define a space between the plates;

sensing a first state of a medical fluid receptacle located within a the space ~~defined between a pair of capacitor plates~~ when a flexible membrane receptacle within the medical fluid receptacle is substantially empty of fluid so that a relatively low dielectric fluid exists between the plates and the receptacle;

providing the medical fluid to the flexible membrane fluid receptacle;

sensing a second state of the fluid receptacle with the capacitor plates when the flexible membrane is substantially full of medical fluid; and determining a volume of the medical fluid in the fluid receptacle based on the first and second states sensed by the capacitor plates.

- Please cancel claim 73

Election/Restrictions

1. Claims 21 and 22 are directed to an allowable product. Pursuant to the procedures set forth in the Official Gazette notice dated March 26, 1996 (1184 O.G. 86), claims 21 and 22, directed to the process of making or using the patentable product, previously withdrawn from consideration as a result of a restriction requirement, are now subject to being rejoined. Claims 21 and 22 are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Since all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, the restriction requirement made in the Office action mailed on 04 March 2003 is hereby withdrawn.

Allowable Subject Matter

2. Claims 1-59 are allowed.
3. The following is an examiner's statement of reasons for allowance: A device for providing dialysis with both a fluid receptacle with a hollow interior housing a membrane receptacle whereby a plurality of capacitor plates surround the fluid receptacle, in

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combination with all other limitations of the independent claims is not disclosed nor deemed obvious in view of the prior art of record. The prior art does not teach the claimed combined fluid receptacle features of the present invention. One example of applicable prior art is the Goldis Patent (U.S. Patent Number 5,635,962). Goldis teaches and shows in figure 1 a prior art teaching of a flexible membrane within a fluid receptacle or chamber with a hollow interior. However, Goldis has the capacitive plates for the device on the inner surface of the housing to interact with the membrane. There is no motivation in the disclosure of Goldis, or the prior art of record, that would indicate success in placing the capacitive plates on the outside or exterior surface of the receptacle or chamber.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney T. Frank whose telephone number is (571) 272-2193. The examiner can normally be reached on M-F 9-5:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RTF
December 12, 2005



HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800